

Remarks:

Currently Claims 1 to 20 stand in the present application. In response to the Action, the Applicant has amended Claims 1, 2, 6 to 12, and 14, and has cancelled Claims 3 to 5, 13, 15 and 16. As a result of these amendments, Claims 1, 2, 6 to 12, 14 and 17 to 20 remain in the present application.

In particular, the Examiner is requested to note that Claim 1 has been amended to incorporate the subject matter of Claims 3 to 5. Also, Claims 1, 2, and 6 to 10 have been amended to be directed to “cold-mixed pie crust mixtures”. Also, “method” Claims 11 to 20 have been amended in a similar fashion.

In view of the amendments made herein, and in view of the comments presented hereinbelow, the Applicant contends that the amended set of claims provided herein, are now allowable.

As to the specific issues raised by the Examiner in the Office Action, the Applicant comments as follows.

Rejection under 35 USC § 112

Claims 2, 3, 9, 11 and 14 currently stand as being rejected under 35 USC 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In Claim 2, the Examiner objected to the phrase “mixtures and combinations thereof”. This phrase is commonly used in the patent literature, and is well understood by the skilled artisan. However, to expedite prosecution, the Applicant has amended Claims 2 and 14, to remove the word “mixtures”.

As to Claim 3, which is now incorporated into Claim 1, the Examiner objects to the language used that the oil has a “freezing point of ‘between +5 and -35 degree C’”. The Examiner then comments that “+5 degree C is not freezing temperature”. As the Examiner is surely aware, the “freezing” point of different materials can vary from one material to the next. While the freezing point of water is 0°C, the freezing point identified in Claim 3 is the freezing point of the oil and/or fat constituent. This very well can be in the range as specified by the Applicant, as set out in, for example, paragraph 11 of the application as published (See

US2005/0214427). Further, it is stated in Claim 1 that a “frozen” oil/fat system is used, and that the frozen oil/fat system has a consistency similar to that of pork lard at 4°C.

Thus, it is clearly stated in the claim that the fat/oil system is frozen, that the oil has a freezing point of as high at +5°C, or as low as -35°C, and that the frozen fat/oil system has a specified consistency. As such, the skilled artisan would have no difficulty in understanding the claim, and as such, the objection under Section 112, should be withdrawn.

Further, the Examiner’s comment that “+5 is not a freezing temperature” is clearly incorrect in the context of this claim, and should be withdrawn.

Similarly, the Examiner’s comment that “normal refrigeration temperature is around 2.7 degree C” also has no bearing on the claim. Again, it is to be noted that Claim 1 includes the restriction that the oil have a freezing point of between +5°C and -35°C. This restriction would be clearly understood by the skilled artisan.

Should the Examiner wish to maintain these objection under 35 USC 112, further comments on the Examiner’s position are requested.

As to Claim 9, clear antecedent for the term “mixture” has now been provided.

As to Claim 11, the issues regarding the freezing point have been previously discussed with respect to Claim 3 (which is now part of Claim 1). Further, the Examiner appears to have misunderstood the phrase in Claim 11 wherein it is stated that the water is cooled to a temperature in the range of between 0°C and +15°C. It is to be noted that this water component is to contain up to 50% shaved, flaked or finely ground ice. As the Examiner must surely also be aware, the conversion of water to ice, and vice versa, is not instantaneous. Ice, at a temperature of 0°C or lower, when added to water at +15°C, for example, does not melt instantaneously, but instead slowly melts over a period of time. Further, a water/ice mixture cooled to 0°C does not instantaneously freeze to ice, but instead, freezes solid over a period of time.

In the present invention, the Applicant requires that the water component has up to 50% of the water present in the form of ice (whether as shaved ice, flaked ice, or finely ground ice) when the water component is mixed with the flour component. The temperature of the water or ice and water combination, however, is to be between 0°C and +15°C at the time the water or water/ice combination is added to the flour constituent. The skilled artisan will be well aware that at any given time, the water or ice/water combination can have a temperature of between 0°C and

+15°C, and still meet the requirements of the claim. As such, this objection under 35 USC 112 should also be withdrawn.

Further, the Examiner comments that “at 0°C, the water would freeze”. While this statement is technically correct over the long term, since the water would not instantaneously freeze, it is clearly possible to have an ice/water combination which would be at 0°C, at the time of mixing with the flour component. Thus, the conditions of the claim would be satisfied.

Also, the Examiner continues on to comment that if the water is frozen, “then how can it be mixed with the flour and oil/fat in step c”. Again, the Applicant is not claiming adding a solid block of ice to a flour mixture. The claim requires cool water, or a mixture of liquid water and up to 50% of small ice portions. The combination of water and small ice portions can clearly be easily mixed with the flour component.

Accordingly, the skilled artisan would clearly understand the scope of Claim 11, and as such, the objection under 35 USC 112 should be withdrawn. Similarly, the objection to Claim 14, for the same reasons, should also be withdrawn.

Further, Claims 1 to 20 also currently stand rejected under 35 USC § 112, first paragraph, as failing to comply with the enablement requirement. Specifically, the Examiner contends that Claims 1 to 20 contain subject matter which was not described in the specification in such a way as to enable one skilled in the art of which it pertains, or with which it is most nearly connected, to make and/or use the invention. Again, however, the Examiner has misunderstood the requirements of the claims.

In general, it is to be noted from a review of the specification and the claims, that it is a clear requirement of the claims that the pie crust mixture described herein be produced in a cool environment. With this cool environment, the use of a particular oil/fat material having desirable properties is therefore clearly beneficial. Use of an improper oil/fat material will not provide the benefits seen in the present application. Thus, the selection of a proper formulation of materials, at the correct temperatures, is essential to providing the cold-mixed pie crust mixture of the present invention. It is this realization and teaching that the Applicants seek to cover in the present application.

The claims require that the water component be between 0°C and +15°, and contain up to 50% ice as shaved, flaked or finely ground ice. As discussed hereinabove, this temperature range

is clearly readily obtainable for the brief time at which the water or water/ice mixture is added to the flour component. The skilled artisan would have no problem in creating these conditions in order to meet the requirements of the claims. While 0°C is an extreme end of the range, it is clearly possible to meet this requirement since water at 0°C does not instantaneously freeze solid, but exists as a water and ice mixture for some time. It is during this time, that it can be added to the flour component, as described in the claim.

Further, with respect to the Examiner's comment that the "specification does not teach how frozen water can be mixed with the oil/fat system", the Applicant contends that this statement is not clear and/or is not irrelevant. The Applicant does not teach the mixture of frozen water with the oil fat system. In fact, the Applicant instead requires that at least 50% of the water component be present as liquid water. Further, as discussed above, any ice present is present as shave, flaked or finely ground ice, and therefore can be easily mixed with the other constituent materials.

Also, the Examiner comments that "it is not seen how the oil/fat will be frozen at 5 degree C because that is refrigeration temperature". Again, the Applicant contends that this point is not clearly stated, and clarification is requested. However, for discussion purposes, the frozen oil/fat system, as previously described is one wherein the oil must have a freezing point of between +5°C and -35°C. As with virtually any oil/fat system, this does not mean that the oil/fat material forms a solid, hard block of material when frozen. Instead, as stated in the claim, the frozen oil/fat system is a material which has a consistency similar to that of pork lard at +4°C. The consistency of lard at this temperature is well known to the skilled artisan. If the Examiner, however, is not familiar with this material at that temperature, it can be stated that it is not a rigid, hard solid, but instead is a relatively soft solid, and malleable material that can be easily kneaded, crumbed, broken, or mixed into other materials. The skilled artisan would know the desired pork lard consistency, and thus would clearly understand that the frozen oil/fat material is not intended to be a solid, hard, rigid block, but instead would be a soft, malleable material that can be easily mixed with the water and/or flour components.

As such, the Examiner must not confuse the word "frozen", when applied to the oil/fat system, with the same word when applied to water (i.e. that is "ice").

On a reasonable reading of the claims, the skilled artisan would have no difficulty in

providing the requisite materials at the required temperatures, and thus would clearly be able to follow the teachings of the present invention, as claimed. Thus, the claims, when read in view of the entire disclosure clearly teach the skilled artisan to use specific materials, at specific temperatures, in a specific manner, in order to provide a pie crust mixture having the beneficial properties taught by the Applicant. Once mixed, the Applicant does not need to state the temperature range of the pie crust mixture since this would merely be the resultant temperature of the combination of the constituent products.

Thus, the skilled artisan would have no difficulty in understanding the claim requirements, and/or reducing the claims to practice in the manner taught in the specification or claims. As such, the claims clearly and distinctly claim the subject matter which the Applicant regards as the present invention.

As such, all of the objections under 35 USC § 112 should now be withdrawn.

However, if the Examiner wishes to maintain any of these objections, further details of the Examiner's objections, in view of the comments made herein, are requested.

Rejection under 35 USC § 102

Claims 1, 2, 4, 9 and 10 currently stand rejected under 35 USC § 102(b) as being anticipated by US Patent No. 5866187 (hereinafter "Kincs"). The Applicant respectfully traverses this objection.

First, it should be noted that Claim 1 now incorporates the subject matter of Claim 3, which claim was not objected as being anticipated by Kincs. As such, amended Claim 1 is now also not anticipated by Kincs.

Also, Claim 4 has been cancelled and thus, the anticipation objection has been obviated.

Further, Claims 2, 9 and 10 are now all directly dependent on Claim 1. As such, with the incorporation of Claim 3 into Claim 1, the anticipation objection to these claims has now also been obviated.

Accordingly, the Applicant contends that the rejection of Claims 1, 2, 9 and 10, under 35 USC § 102, should now be withdrawn.

Rejection under 35 USC § 103

Claims 3, 5, 6 to 8, and 11 to 20 stand rejected under 35 USC 103(a) as being obvious over Kincs, in view of US Patent No. 5766664 (hereinafter “Peleg”), and portions of the book entitled “Professional baking”. Again, the Applicant respectfully traverses this rejection.

Since the subject matter of Claim 3 has been incorporated into amended Claim 1, the Applicant will address the Examiner’s comments regarding Claim 3, as now being directed to amended Claim 1.

In general, it can again be stated that the Applicant is providing a novel pie crust mixture that is formed at cool temperatures in order to provide beneficial properties in the pie crust. The Applicant has discovered that this can be achieved by using a specified group of constituent materials, which are used in a fashion wherein their temperatures are controlled so as to be within specified temperature ranges. As such, the present invention is directed to a cold-mixed pie crust mixture wherein it’s constituent elements are products which are adapted for use at lower temperatures, and which are used in conditions that promote and/or maintain the cold mix environment. In particular, oil for the fat/oil system component which is used, is selected as being an oil/fat material having a suitable consistency for cold-mixture, namely, the oil is selected so as to have a freezing point of between -35°C and +5°C, and is used in the frozen state. In that frozen state, the frozen fat/oil system has a consistency similar to that of pork lard at +4°C.

The water component is also cooled so that its temperature is between 0° and +15°C and can contain up to 50% of flaked, shaved or finely ground ice. Thus, the water component is at least 50% liquid water, and up to 50% of small ice particles.

Even the flour, as claimed in Claim 12 can also be cooled to between 0°C and +15°C.

Finally, the constituents are mixed in a cool room or mixing environment, having a temperature of +5°C to 20°C. Thus, it is clear that specific conditions and materials are utilized in order to provide the cold-mixed pie crusts of the present invention.

The Applicant contends that this composition and/or the production techniques of the present invention, are clearly not disclosed or made obvious by the teachings of the cited prior art, when considered alone or in combination.

As to the Kincs reference, it is noted that Kincs is concerned with the production of

shortening in the form of pellets. In particular, Kincs wishes to produce shortening pellets that will “resist clumping together at a temperature of at least about 70°F” (approx. 21°C), as stated at Col. 1, line 43 et. seq. Thus, it is clear that Kincs wishes to produce a shortening, made from a vegetable oil that is essentially solid at 21°C, and as such, provides an oil/fat system which clearly has a freezing point of well above the range of -35°C to +5°C of the present claim.

Further, in order to produce his pellets, Kincs liquefies the vegetable oil by heating to 140 to 150°F (60 to 65°C) (See Col. 2, line 22), and then cooling using a chilling device at a temperature of about 12.8 to 35°C. Thus, at the very least, the freezing point of the vegetable oil of Kincs is well above the maximum freezing point of the oil/fat system claimed in the present invention. The oils used by Kincs must have a freezing point above 12.8°C, and typically be well above this temperature so that a chilling device set at this temperature, would be able to cool a liquefied material at 60°C to a temperature that produces an oil/fat system having 25 to 35% solids material (See Col. 2, line 41).

Thus, since Kincs does not use a vegetable oil having the same freezing points as the oils in the present invention, it cannot be said that the oils used by Kincs and in the present invention, are the same. Other than possibly sharing the same generic name, such as vegetable oil, etc., the specific oils used in the present invention are clearly different from the oils used to prepare the Kincs pelletized shortening since the freezing points of the oils used in the present invention are significantly lower than the temperatures described by Kincs. As such, the Applicant contends that the difference in the nature of the oil material used in the present invention, does lead to a novel pie crust material which is not in any way suggested by the teachings of Kincs.

As to Peleg, the Applicant notes that Peleg describes the production of a pie crust which is made from flour, a fat (such as lard) and water. Peleg does describe the replacement of at least part of the fat with an oil. However, Peleg describes two separate methods of achieving this replacement.

First, as described in the table of ingredients in Col. 2, and in the discussion at Col. 2, line 19 et. seq. it is noted that only some of the fat typically used in a pie crust is replaced by a “liquid vegetable oil”. With respect to the remaining fat component, Peleg notes that the fat used in the pie crust can be any of the “fats typically used in pie crust dough which are plastic solids at room temperature” (emphasis added). Thus, Peleg requires the use of a fat which is a

“plastic sold” at around 21°C.

As to the “liquid vegetable oil”, Peleg is silent as to the range of temperatures at which the oil will freeze to form an oil/fat system. As such, there is no teaching of the total replacement of the fat commonly used in pie crusts, with an oil/fat system of the type taught in the present invention where the replacement oil has a freezing point of between -35°C and +5°C.

In the second embodiment, described in Col. 3, line 7 et. seq. Peleg provides a pie crust wherein the fat has been replaced by an aqueous emulsion of a liquid vegetable oil and a plastic animal and/or vegetable fat. At Col. 3, line 37, it is stated that up to 50% of the standard fat can be replaced by the vegetable oil.

As such, it is clear that Peleg again does not teach the total replacement of the standard fat with an oil having a specific freezing point range. While Peleg might describe the use of a vegetable oil having a freezing point as low as 1.6°C at Col. 3, line 19, it must be acknowledged by the Examiner that this oil is only used to partially replace the standard plastic solid fat. Further, its use is restricted to applications in an aqueous emulsion.

As the Examiner is fully aware, the use of an aqueous emulsion of a plastic solid fat, and a liquid vegetable oil, is significantly different than the use of a frozen oil having the desired freezing point. As such, the combination of the Peleg document to the Kincs document would not lead the skilled artisan to the present invention since neither document would provide the total replacement of the standard plastic solid fat with a frozen oil/fat system wherein the oil has the specified freezing point, as set out in the present claims.

The Examiner comments that Peleg describes the use of water chilled to a temperature of 1.6 to 7.1°C to form the dough. However, the use of cool water is a clearly described feature of many prior art pie crust production techniques. It does not, though, provide any basis for making any conclusions on the nature of the oil and/or fat to be used.

The excerpts from the “Professional Baking” document have also been reviewed, and it is noted that the pie dough should be kept cool to about 15°C during mixing and makeup. However, again, this is well known in the industry, and still does not provide any basis for making any conclusions on the nature of the oil and/or fat to be used. Thus, the combination of the teachings of the Professional Baking text, with the Peleg and/or Kincs documents, would not lead the skilled artisan to the use of the oils of the present invention in the production of a pie crust

mixture.

In the Examiner's summary starting at page 5, final paragraph, the Examiner comments that "it would be obvious to one skilled in the art to use any known dough formulation to make the crust. Such formulation is exemplified in the Peleg et al. teaching". However, the present invention teaches that it is beneficial to use an oil having the low temperature freezing points which are described and claimed. Neither Kincs or Peleg describe the use of these oils as total replacements for conventional oil/fat combinations. At best, Peleg provides for the use of a low freezing temperature oil, but this is only used as a partial replacement for a conventional fat (ie. meaning that conventional fats are still used), and further, that this low freezing point oil is used in an aqueous emulsion.

The Examiner continues by commenting that Kincs teaches the "temperature can vary depending on the vegetable oil being processed. Thus, it would have been obvious to use lower temperature when the oil being processed requires lower temperature to solidify". However, again, this misstates the nature of the present invention. The prior art teaches the desirability to provide cooled materials when producing a pie crust. However, any solid fat can be cooled to a desired temperature but the selection of that fat was not critical in the prior art documents. Prior to the present application, the use of a frozen oil/fat system wherein the oil has a low temperature freezing points, has not been taught. As such, the temperature is not merely a result-effective variable, but an entirely novel approach to the problems faced by the skilled artisan. While numerous parties teach cooler temperatures, absent hindsight to the present invention, none of the prior art documents teach the use of the specific oils (with the specified freezing point range) of the present invention.

As to the ice content, it is again noted that the prior art teaches the use of cool water, and it is acknowledged that adding ice to the liquid water will clearly have this effect. However, in respect of a low temperature pie crust formulation, the use of the ice content in combination with the selected low freezing point oils, and its beneficial effect is novel. For example, in paragraph 0069 of the published application of the present invention, it is clearly taught that use of up to 50% ice aids to ensure that there is less likelihood of oil absorption by the flour constituent of the pie crust formulation. This is clearly not taught or described by the cited prior art.

As such, the Applicant contends that the present invention is both novel and inventive

over the cited prior art, either when each document is considered alone, or when considered in combination. No combination of the prior art documents teaches the formulations and products of the present invention, and the beneficial and desirable features that arise therefrom.

As to the remaining prior art, the Applicant has reviewed these documents, but believe that none of these documents provide any additional features that would be destructive of novelty or inventiveness.

With these amendments and comments, the Applicant now contends that a full and complete response to the Office Action of December 13, 2006 has been prepared and submitted. As such, the Applicant contends that the present application is now in condition for allowance, and early notification to that effect is respectfully requested.

Respectfully submitted,
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